

0590

1026

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OIPE

## RAW SEQUENCE LISTING

DATE: 11/29/2001

PATENT APPLICATION: US/09/976,736

TIME: 15:13:56

Input Set : N:\Crif3\RULE60\09976736.txt

Output Set: N:\CRF3\11292001\I976736.raw

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3 <110> APPLICANT: Bass, Michael B
4 Sullivan, John K
5 Theill, Lars E
6 Wang, Daguang
8 <120> TITLE OF INVENTION: NOVEL DKR POLYPEPTIDES
10 <130> FILE REFERENCE: A-548
12 <140> CURRENT APPLICATION NUMBER: 09/976,736
13 <141> CURRENT FILING DATE: 2001-10-09
15 <150> PRIOR APPLICATION NUMBER: 09/161,241
16 <151> PRIOR FILING DATE: 1998-09-25
18 <160> NUMBER OF SEQ ID NOS: 78
20 <170> SOFTWARE: PatentIn Ver. 2.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 1050
24 <212> TYPE: DNA
25 <213> ORGANISM: Mouse
27 <400> SEQUENCE: 1
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30 cctcaggagg aagctacgct caatgagatg tttcgagagg tggaggagct gatggaagac 180
31 actcagcaca aactgcgcag tgccgtggag gagatggagg cggaagaagc agctgctaaa 240
32 acgtcctctg aggtgaacct ggcaagctta cctcccaact atcacaatga gaccagcacg 300
33 gagaccaggg tgggaaataa cacagtccat gtgcaccagg aagttcaca gataaccaac 360
34 aaccagagtg gacagtggtt cttttctgag acagtcatta catctgtagg ggatgaagaa 420
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37 gacagtgaat gctgtggaga ccagctgtgt gcctggggtc actgcaccca aaaggccacc 600
38 aaagtggtgca atgggacat ctgtgacaac cagagggatt gccagcctgg cctgtgttgt 660
39 gccttccaaa gaggcctgct gttccccgtg tgcaaccccc tgcccgtgga gggagagctc 720
40 tgccatgacc ccaccagcca gctgctggat ctcctacact gggaactgga gcctgaagga 780
41 gctttggacc gatgcccctg cgccagtggc ctcctatgcc agccacacag ccacagtctg 840
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43 cccagggagg ccccgatga gtacgaagat gttggcttca taggggaagt gcgccaggag 960
44 ctggaagacc tggagcggag cctagcccag gagatggcat ttgaggggcc tgcccctgtg 1020
45 gagtcactag gcggagagga ggagatttag 1050
47 <210> SEQ ID NO: 2
48 <211> LENGTH: 1053
49 <212> TYPE: DNA
50 <213> ORGANISM: Human
52 <400> SEQUENCE: 2
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54 cccgcgcccg ctccgacggc gacctcggct ccagtcaagc cgggcccggc tctcagctac 120
55 ccgcaggagg aggccacct caatgagatg ttccgcgagg ttgaggaact gatggaggac 180
56 acgcagcaca aattgcgcag gcggtggaa gagatggagg cagaagaagc tgctgctaaa 240
57 gcatcatcag aagtgaacct ggcaaaccta cctcccagct atcacaatga gaccaacaca 300
58 gacacgaagg ttggaataa taccatccat gtgcaccgag aaattcaca gataaccaac 360
59 aaccagactg gacaaaatgt cttttcagag acagttatca catctgtggg agacgaagaa 420

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60 ggcagaagga gccacgagtg catcatcgac gaggactgtg ggcccagcat gtactgccag 480
61 tttgccagct tccagtacac ctgccagcca tgccggggcc agaggatgct ctgcaccccg 540
62 gacagtgagt gctgtggaga ccagctgtgt gtctggggtc actgcaccaa aatggccacc 600
63 aggggcagca atgggacat ctgtgacaac cagagggaact gccagccggg gctgtgctgt 660
64 gccttcaga gaggcctgct gttccctgtg tgcacacccc tgcccgtgga gggcgagctt 720
65 tgccatgacc ccgccagccg gcttctggac ctcatcacct gggagctaga gcctgatgga 780
66 gccttgacc gatgcccttg tgccagtggc ctctctgcc agccccacag ccacagcctg 840
67 gtgtatgtgt gcaagccgac ctctgtggg agccgtgacc aagatgggga gatcctgtg 900
68 ccagagagg tccccgatga gtatgaagt ggagcttca tggaggagg gcgccaggag 960
69 ctggaggacc tggagaggag cctgactgaa gagatggcg tgggggagcc tgcggtgcc 1020
70 gccgtgcac tgctgggagg ggaagagatt tag 1053

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73 &lt;211&gt; LENGTH: 801

74 &lt;212&gt; TYPE: DNA

75 &lt;213&gt; ORGANISM: Human

77 &lt;400&gt; SEQUENCE: 3

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79 ctcggcggcc accctctgct gggagtggc gccacctga actcgttct caattccaac 120
80 gctatcaaga acctgcccc accgtgggc ggcgtgcgg ggcacccagg ctctgcagtc 180
81 agcgcgcgc cgggaatcct gtacccggg ggaataagt accagaccat tgacaactac 240
82 cagccgtacc cgtgcgcaga ggacgaggag tgcggcactg atgagtactg cgtagtccc 300
83 acccgcgag gggacgcgg cgtgcaaate tgtctgcct gcaggaagcg ccgaaaacgc 360
84 tgcattgctc acgctatgtg ctgccccggg aattactgca aaaatggaat atgtgtgtct 420
85 tctgatcaaa atcatttccg aggagaaatt gaggaacca tctactgaa ctttggtaat 480
86 gatcatgca ccttgatgg gtattccaga agaaccacct tgtctcaaa aatgtatcac 540
87 accaaaggac aagaaggttc tgtttgtct cggctcatcag actgtgcctc aggattgtgt 600
88 tgtgctagac acttctggtc caagatctgt aaacctgtcc tgaaagaagg tcaagtgtgt 660
89 accaagcata ggagaaaagg ctctcatgga ctagaaatat tccagcgttg ttactgtgga 720
90 gaaggtctgt cttgccggat acagaaagat caccatcaag ccagtaattc ttctaggctt 780
91 cacactgtc agagacacta a 801

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93 &lt;210&gt; SEQ ID NO: 4

94 &lt;211&gt; LENGTH: 780

95 &lt;212&gt; TYPE: DNA

96 &lt;213&gt; ORGANISM: Mouse

98 &lt;400&gt; SEQUENCE: 4

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99 atggccgcgc tgatgcgggt caaggattca tcccgtgcc ttctctact ggccgcgggt 60
100 ctgatggtgg agagctcaca gtaggcagc tcgcgggcca aactcaactc catcaagtcc 120
101 tctctaggag gggagactcc tgctcagtc gccaacccgat ctgcaggcat gaaccaagga 180
102 ctggctttcg gcggcagtaa gaagggcaaa agcctggggc aggcctaccc ttgcagcagt 240
103 gataaggaat gtgaagtgg aagatactgc cacagtcacc accaaggatc atcagcctgc 300
104 atgctctgta ggaggaaaaa gaaacgatg cacagagatg ggatgtgtt ccctgggtacc 360
105 cgtgcaata atggaatctg catcccagtc actgagagca tcctcaccac acatatccca 420
106 gctctggatg gcacccggca tagagatcgc aacctgggtc actattccaa ccatgacctg 480
107 ggatggcaga atctaggaag gccacactcc aagatgcctc atataaaagg acatgaagga 540
108 gacccatgcc tacggctcatc agactgcatt gatgggtttt gttgtgctcg ccacttctgg 600
109 accaaaatct gcaaaccagt gctccatcag ggggaagtct gtaccaaaca acgcaagaag 660
110 ggttcgcacg ggctggagat tttccagagg tgtgactgtg caaagggcct gtcctgcaaa 720
111 gtgtggaaag atgccaccta ctcttccaaa gccagactcc atgtatgcca gaagatctga 780
113 <210> SEQ ID NO: 5

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114 &lt;211&gt; LENGTH: 780

115 &lt;212&gt; TYPE: DNA

116 &lt;213&gt; ORGANISM: Human

118 &lt;400&gt; SEQUENCE: 5

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120 ctgatgggtg agagctcaca gatcggcagt tcgcggggcca aactcaactc catcaagtcc 120
121 tctctgggcg gggagacgcc tggtcaggcc gccaatcgat ctgcgggcat gtaccaagga 180
122 ctggcattcg gcggcagtaa gaagggcaaa aacctggggc aggcctaccc ttgtagcagt 240
123 gataaggagt gtgaagttgg gaggtattgc cacagtcccc accaaggatc atcggcctgc 300
124 atggtgtgtc ggagaaaaaa gaagcgctgc caccgagatg gcatgtgctg cccagttacc 360
125 cgctgcaata atggcatctg tatcccagtt actgaaagca tcttaacccc tcacatcccc 420
126 gctctggatg gtactcggca cagagatcga aaccacggtc attactcaaa ccatgacttg 480
127 ggatggcaga atctaggaag accacacact aagatgtcac atataaaaagg gcatgaagga 540
128 gacctctgcc tacgatcatc agactgcatt gaagggtttt gctgtgctcg tcatttctgg 600
129 accaaaatct gcaaacacagt gctccatcag ggggaagtct gtaccaaaca acgcaagaag 660
130 ggttctcatg ggctggaaat tttccagcgt tgcgactgtg cgaagggcct gtcttgcaaa 720
131 gtatggaaag atgccaccta ctctccaaa gccagactcc atgtgtgtca gaaaatttga 780

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133 &lt;210&gt; SEQ ID NO: 6

134 &lt;211&gt; LENGTH: 624

135 &lt;212&gt; TYPE: DNA

136 &lt;213&gt; ORGANISM: Human

138 &lt;400&gt; SEQUENCE: 6

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139 atggccgcgt tgatgcggag caaggattcg tcctgctgcc tgctcctact ggccgcggtg 60
140 ctgatgggtg agagctcaca gatcggcagt tcgcggggcca aactcaactc catcaagtcc 120
141 tctctgggcg gggagacgcc tggtcaggcc gccaatcgat ctgcgggcat gtaccaagga 180
142 ctggcattcg gcggcagtaa gaagggcaaa aacctggggc aggcctaccc ttgtagcagt 240
143 gataaggagt gtgaagttgg gaggtattgc cacagtcccc accaaggatc atcggcctgc 300
144 atggtgtgtc ggagaaaaaa gaagcgctgc caccgagatg gcatgtgctg cccagttacc 360
145 cgctgcaata atggcatga aggagacccc tgcctacgat catcagactg cattgaaggg 420
146 ttttctgtg ctctgcatct ctggaccaa atctgcaaac cagtgtctca tcagggggaa 480
147 gtctgtacca aacaacgcaa gaagggttct catgggctgg aaattttcca gcgttgcgac 540
148 tgtgcgaagg gcctgtcttg caaagtatgg aaagatgcca cctactcctc caaagccaga 600
149 ctccatgtgt gtcagaaaaa ttga

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151 &lt;210&gt; SEQ ID NO: 7

152 &lt;211&gt; LENGTH: 675

153 &lt;212&gt; TYPE: DNA

154 &lt;213&gt; ORGANISM: Human

156 &lt;400&gt; SEQUENCE: 7

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157 atggtggcgg ccgtcctgct ggggctgagc tggtctgtct ctcccctggg agctctggtc 60
158 ctggacttca acaacatcag gagctctgct gacctgcatg gggcccggaa gggctcacag 120
159 tgctgtctg acacggactg caataccaga aagttctgcc tccagccccg cgatgagaag 180
160 ccgttctgtg ctacatgtcg tgggttcgag aggagtgcc agcgagatg catgtgctgc 240
161 cctgggacac tctgtgtgaa cgatgtttgt actacgatgg aagatgcaac cccaatatta 300
162 gaaaggcagc ttgatgagca agatggcaca catgcagaag gaacaactgg gcacccagtc 360
163 caggaaaacc aacccaaaag gaagccaagt attaagaaat cacaaggcag gaagggacaa 420
164 gagggagaaa gttgtctgag aacttttgac tgtggccctg gactttgctg tgctcgtcat 480
165 ttttgacga aaatttgtaa gccagtcctt ttggagggac aggtctgctc cagaagaggg 540
166 cataaagaca ctgctcaagc tccagaaatc ttccagcgtt gcgactgtgg ccctggacta 600
167 ctgtgtcgaa gccaatgac cagcaatcgg cagcatgctc gattaagagt atgccccaaa 660

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Output Set: N:\CRF3\11292001\I976736.raw

675

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168 atagaaaagc tataa
170 <210> SEQ ID NO: 8
171 <211> LENGTH: 349
172 <212> TYPE: PRT
173 <213> ORGANISM: Mouse
175 <400> SEQUENCE: 8
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177 1 5 10 15
179 Val Pro Thr Ala Pro Ala Pro Ser Pro Thr Val Thr Trp Thr Pro Ala
180 20 25 30
182 Glu Pro Gly Pro Ala Leu Asn Tyr Pro Gln Glu Glu Ala Thr Leu Asn
183 35 40 45
185 Glu Met Phe Arg Glu Val Glu Glu Leu Met Glu Asp Thr Gln His Lys
186 50 55 60
188 Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu Glu Ala Ala Ala Lys
189 65 70 75 80
191 Thr Ser Ser Glu Val Asn Leu Ala Ser Leu Pro Pro Asn Tyr His Asn
192 85 90 95
194 Glu Thr Ser Thr Glu Thr Arg Val Gly Asn Asn Thr Val His Val His
195 100 105 110
197 Gln Glu Val His Lys Ile Thr Asn Asn Gln Ser Gly Gln Val Val Phe
198 115 120 125
200 Ser Glu Thr Val Ile Thr Ser Val Gly Asp Glu Glu Gly Lys Arg Ser
201 130 135 140
203 His Glu Cys Ile Ile Asp Glu Asp Cys Gly Pro Thr Arg Tyr Cys Gln
204 145 150 155 160
206 Phe Ser Ser Phe Lys Tyr Thr Cys Gln Pro Cys Arg Asp Gln Gln Met
207 165 170 175
209 Leu Cys Thr Arg Asp Ser Glu Cys Cys Gly Asp Gln Leu Cys Ala Trp
210 180 185 190
212 Gly His Cys Thr Gln Lys Ala Thr Lys Gly Gly Asn Gly Thr Ile Cys
213 195 200 205
215 Asp Asn Gln Arg Asp Cys Gln Pro Gly Leu Cys Cys Ala Phe Gln Arg
216 210 215 220
218 Gly Leu Leu Phe Pro Val Cys Thr Pro Leu Pro Val Glu Gly Glu Leu
219 225 230 235 240
221 Cys His Asp Pro Thr Ser Gln Leu Leu Asp Leu Ile Thr Trp Glu Leu
222 245 250 255
224 Glu Pro Glu Gly Ala Leu Asp Arg Cys Pro Cys Ala Ser Gly Leu Leu
225 260 265 270
227 Cys Gln Pro His Ser His Ser Leu Val Tyr Met Cys Lys Pro Ala Phe
228 275 280 285
230 Val Gly Ser His Asp His Ser Glu Glu Ser Gln Leu Pro Arg Glu Ala
231 290 295 300
233 Pro Asp Glu Tyr Glu Asp Val Gly Phe Ile Gly Glu Val Arg Gln Glu
234 305 310 315 320
236 Leu Glu Asp Leu Glu Arg Ser Leu Ala Gln Glu Met Ala Phe Glu Gly
237 325 330 335
239 Pro Ala Pro Val Glu Ser Leu Gly Gly Glu Glu Glu Ile

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Input Set : N:\Crf3\RULE60\09976736.txt

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244 <211> LENGTH: 350
245 <212> TYPE: PRT
246 <213> ORGANISM: Human
248 <400> SEQUENCE: 9
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252 Val Pro Thr Ala Pro Ala Pro Ala Pro Thr Ala Thr Ser Ala Pro Val
253          20          25          30
255 Lys Pro Gly Pro Ala Leu Ser Tyr Pro Gln Glu Glu Ala Thr Leu Asn
256          35          40          45
258 Glu Met Phe Arg Glu Val Glu Glu Leu Met Glu Asp Thr Gln His Lys
259          50          55          60
261 Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu Glu Ala Ala Ala Lys
262          65          70          75          80
264 Ala Ser Ser Glu Val Asn Leu Ala Asn Leu Pro Pro Ser Tyr His Asn
265          85          90          95
267 Glu Thr Asn Thr Asp Thr Lys Val Gly Asn Asn Thr Ile His Val His
268          100         105         110
270 Arg Glu Ile His Lys Ile Thr Asn Asn Gln Thr Gly Gln Met Val Phe
271          115         120         125
273 Ser Glu Thr Val Ile Thr Ser Val Gly Asp Glu Glu Gly Arg Arg Ser
274          130         135         140
276 His Glu Cys Ile Ile Asp Glu Asp Cys Gly Pro Ser Met Tyr Cys Gln
277 145          150         155         160
279 Phe Ala Ser Phe Gln Tyr Thr Cys Gln Pro Cys Arg Gly Gln Arg Met
280          165         170         175
282 Leu Cys Thr Arg Asp Ser Glu Cys Cys Gly Asp Gln Leu Cys Val Trp
283          180         185         190
285 Gly His Cys Thr Lys Met Ala Thr Arg Gly Ser Asn Gly Thr Ile Cys
286          195         200         205
288 Asp Asn Gln Arg Asp Cys Gln Pro Gly Leu Cys Cys Ala Phe Gln Arg
289          210         215         220
291 Gly Leu Leu Phe Pro Val Cys Thr Pro Leu Pro Val Glu Gly Glu Leu
292 225          230         235         240
294 Cys His Asp Pro Ala Ser Arg Leu Leu Asp Leu Ile Thr Trp Glu Leu
295          245         250         255
297 Glu Pro Asp Gly Ala Leu Asp Arg Cys Pro Cys Ala Ser Gly Leu Leu
298          260         265         270
300 Cys Gln Pro His Ser His Ser Leu Val Tyr Val Cys Lys Pro Thr Phe
301          275         280         285
303 Val Gly Ser Arg Asp Gln Asp Gly Glu Ile Leu Leu Pro Arg Glu Val
304          290         295         300
306 Pro Asp Glu Tyr Glu Val Gly Ser Phe Met Glu Glu Val Arg Gln Glu
307 305          310         315         320
309 Leu Glu Asp Leu Glu Arg Ser Leu Thr Glu Glu Met Ala Leu Gly Glu
310          325         330         335
312 Pro Ala Ala Ala Ala Ala Ala Leu Leu Gly Gly Glu Glu Ile

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## VERIFICATION SUMMARY

DATE: 11/29/2001

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TIME: 15:13:57

Input Set : N:\Crf3\RULE60\09976736.txt

Output Set: N:\CRF3\11292001\I976736.raw

L:598 M:258 W: Mandatory Feature missing, &lt;221&gt; not found for SEQ ID#:15

L:598 M:258 W: Mandatory Feature missing, &lt;222&gt; not found for SEQ ID#:15

L:598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15